

## AMENDMENTS TO THE SPECIFICATION

### **In the Specification:**

#### **I. Objection to Abstract**

Please replace the abstract at page 50 with the following amended abstract.

A new recommendation technique, referred to as "personality diagnosis", that can be seen as a hybrid between memory-based and model-based collaborative filtering techniques is described. Using personality diagnosis, all data may be maintained throughout the process, new data can be added incrementally, and predictions have meaningful probabilistic semantics. ~~Each entity's (e.g., user's) reported attributes (e.g., item ratings or preferences) may be interpreted as a manifestation of their underlying personality type. Personality type may be encoded simply as vector of the entity's (e.g., user's) "true" values (e.g., ratings) for attributes (e.g., items) in the database. It may be assumed that entities (e.g., users) report values (e.g., ratings) with a distributed (e.g., Gaussian) error.~~ Given an active entity's (e.g., user's) known attribute values (e.g., item ratings), the probability that they have ~~the~~ a same personality type as every other entity (e.g., user) may be determined. Then, the probability that they will have a given value (e.g., rating) for a valueless (e.g., unrated) attribute (e.g., item) may then be determined based on the entity's (e.g., user's) personality type. The probabilistic determination may be used to determine expected value of information. ~~Such an expected value that could be used in at least two ways. First, an interactive recommender could use expected value of information to favorably order queries for attribute values (e.g., item ratings), thereby mollifying what could otherwise be a tedious and frustrating process and/or. Second, expected value of information could be used to determine which entries of a database to prune or ignore—that is, which entries, which if removed would have a minimal effect of the accuracy of recommendations.~~